
Marine Physical Laboratory

Forward Scattering Experiment

William S. Hodgkiss

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Forward Scattering Experiment

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Abstract

The objective of this project was to participate in the planning and carrying out of a forward scattering experiment including the deployment of a vertical array of source transducers. Unfortunately, due to several changes of candidate locations and dates for the experiment, this project ended without the experiment actually having been carried out.

Research Summary

At the initiation of this project by the Naval Research Laboratory (NRL), it was anticipated that a forward scattering experiment would be carried out in ~100 m deep water off the coast of Florida. Under previous Office of Naval Research (ONR) sponsorship, the Marine Physical Laboratory (MPL) had deployed a vertical source array consisting of a maximum of 25 slotted cylinder sources with center frequency of 445 Hz. In this project, MPL was to participate in experiment planning and carrying out of the experiment. The budget consisted primarily of MPL personnel expenses associated with preparing the vertical source array hardware and transmit control system for the experiment as well as participation in the experiment itself.

Unfortunately, there were several changes in candidate locations and dates for the experiment. As a result, this project ended without the experiment actually having been carried out. A modest amount of funds were expended over the period of performance for initial inspection and set up of the vertical source array hardware and some initial work in source waveform synthesis. In support of the former, a connector was molded onto the source array umbilical cable. In support of the latter, digital-to-analog (D/A) boards were acquired to facilitate source transmissions.

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